

Name: _____

Date: _____

Math Journal

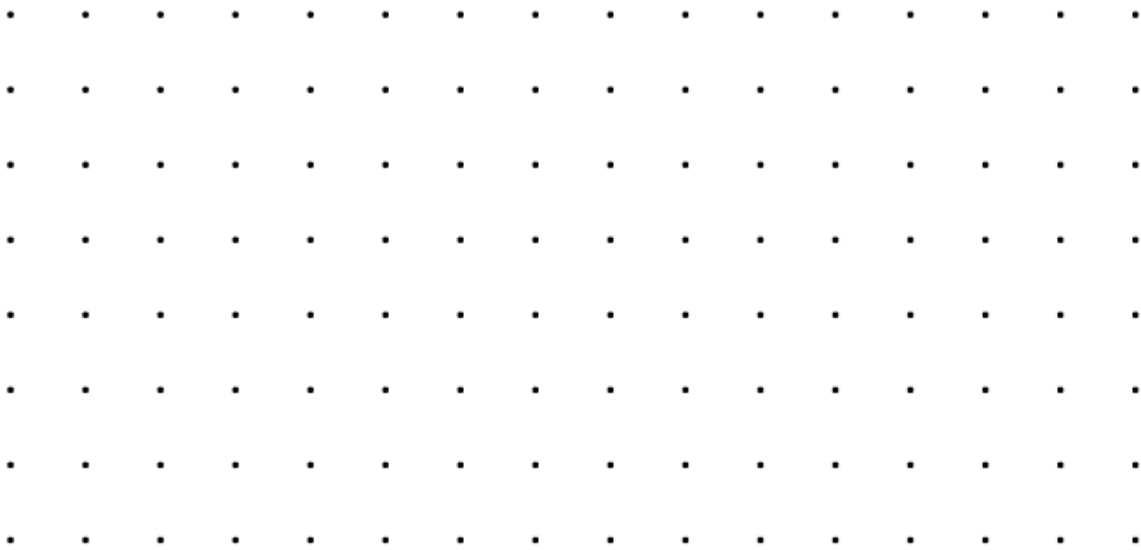
Module 5

Lessons 1 - 21

Read:

Jackie and Ron both have 12 centimeter cubes. Jackie builds a tower 6 cubes high and 2 cubes wide. Ron builds one 6 cubes long and 2 cubes wide. Jackie says her structure has the greater volume because it is taller. Ron says that the structures have the same volume. Who is correct? Draw a picture to explain how you know. Use the grid.

Draw: Draw a picture to explain how you know. Use the grid.



Write:

Read:

Mike uses 12 centimeter cubes to build structures. Use centimeter cubes to build at least 3 different structures with the same volume as Mike's. Record one of your structures on the dot grid.

Draw: Record one of your structures on the dot grid.

**Write:**

Read:

An ice cube tray has two rows of 8 cubes in each. How many ice cubes are in a stack of 12 ice cube trays? Draw a picture to explain your reasoning.

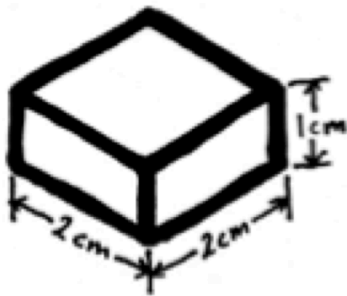
Draw:

Draw a picture to explain your reasoning.

Write:

Read:

Karen says that the volume of this prism is 5 cm cubed and that she calculated it by adding the sides together. Give the correct volume of this prism, and explain Karen's error.

Draw:

Write: Explain Karen's error.

Read:

A storage company advertises three different choices for all your storage needs: “The Cube,” a true cube with a volume of 64 m cubed; “The Double” (double the volume of the cube); and “The Half” (half the volume of the cube). What could be the dimensions of the three

Draw:**Write:**

Read:

The chart below shows the dimensions of various rectangular packing boxes. If possible, answer the following without calculating the volume.

- Which box will provide the greatest volume?
- Which box has a volume that is equal to the volume of the book box? How do you know?
- Which box is $\frac{1}{3}$ the volume of the lamp box?

Draw:

Box Type	Dimensions (l × w × h)
Book Box	12 in × 12 in × 12 in
Picture Box	36 in × 12 in × 36 in
Lamp Box	12 in × 9 in × 48 in
The Flat	12 in × 6 in × 24 in

Write:

Read:

Heidi and Andrew designed two raised flowerbeds for their garden. Heidi's flowerbed was 5 feet long by 3 feet wide, and Andrew's flowerbed was the same length but twice as wide. Calculate how many cubic feet of soil they need to buy to have soil to a depth of 2 feet in both flowerbeds.

Draw:**Write:**

Read:

Mrs. Golden wants to cover her 6.5 foot by 4 foot bulletin board with silver paper that comes in 1-foot squares. How many squares does Mrs. Golden need to cover her bulletin board? Will there be any fractional pieces of silver paper left over? Explain why or why not.

Draw:

Draw a sketch to show your thinking.

Write: Explain why or why not.

Read:

Margo is designing a label. The dimensions of the label are $3\frac{1}{2}$ inches by $1\frac{1}{4}$ inches. What is the area of the label? Use the RDW process.

Draw:**Write:**

Read:

The Colliers want to put new flooring in a $6\frac{1}{2}$ foot by $7\frac{1}{3}$ foot bathroom. The tiles they want come in 12-inch squares. What is the area of the bathroom floor? If the tiles cost \$3.25 per square foot, how much will they spend on the flooring?

Draw:**Write:**

Read:

Kathy spent $\frac{3}{5}$ of her money on a necklace and $\frac{2}{3}$ of the remainder on a bracelet. If the bracelet cost \$17, how much money did she have at first?

Draw:**Write:**

Read:

Ava drew the quadrilateral below and called it a trapezoid. Adam said Ava is wrong. Explain to your partner how a set square can be used to determine who is correct. Support your answer using the properties of trapezoids.

Draw:

Write: Support your answer using the properties of trapezoids.

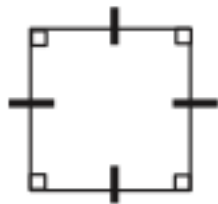
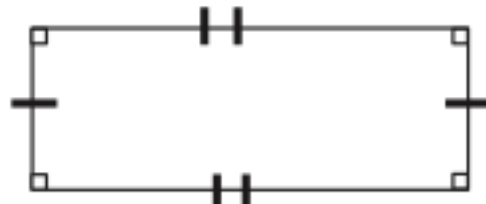
Read:

How many 2-inch cubes are needed to build a rectangular prism that measures 10 inches by 6 inches by 14 inches?

Draw:**Write:**

Read:

The teacher asked her class to draw parallelograms that are rectangles. Kylie drew Figure 1, and Zach drew Figure 2. Zach agrees that Kylie has drawn a parallelogram but says that it's not a rectangle. Is he correct? Use properties to justify your answer.

Draw:**Figure 1****Figure 2**

Write: Use properties to justify your answer.

Read:

Nita buys a rug that is $10\frac{3}{4}$ feet \times $12\frac{1}{2}$ feet. What is the area of the rug? Show your thinking with an area model and a multiplication sentence.

Draw:

Show your thinking with an area model and a multiplication sentence.

Write:
